

PATENT CLAIMS

1. Procedure, for control of data file transmission between transmitting (30-33) and receiving units (20), at
5 which examples of the data file (F) that shall be transmitted/transferred are stored at a plurality of transmitting units (30-33), including the steps

to request transmission of segments (S1-S4) of the data file (F) from a plurality of transmitting units (30-
10 33), and

to receive said segments (S1-S4) from a plurality of transmitting units (30-33).

2. Procedure, as claimed in patent claim 1, at which
15 each separate segment (S1-S4) is transmitted from only one transmitting unit.

3. Procedure, as claimed in patent claim 1 or 2, at which each separate transmitting unit transmits only one
20 segment (S1-S4) of the file.

4. Procedure, as claimed in patent claim 1, including the step

to, when the transmission of a segment (S1-S4) from a
25 transmitting unit is completed, request transmission of one more segment (S1) of the data file (F) from said transmitting unit, at which the transmission of this one more segment (S1) from another transmitting unit has started.

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5. Procedure, as claimed in patent claim 4, at which the step to request transmission of one more segment (S1-S4) includes the steps

to determine for which segment (S1-S4) that largest
35 portion of the segment (S1-S4) remains to be transmitted, and

to request transmission of this segment (S1).

6. Procedure, as claimed in patent claim 4 or 5, at which the step to request transmission of one more segment (S1) includes the step

to request transmission of only a portion (S11) of said more segment (S1), at which this portion (S11) is included in the portion of the segment (S1) that has not yet been transferred.

7. Procedure, as claimed in patent claim 6, at which the step to request transmission of a portion (S11) of said segment (S1) includes the step

to determine how large portion of the segment (S1) that remains to be transferred,

to estimate the transmission speed for the transmitting unit (30) that is busy transmitting said segment (S1) and for the transmitting unit (31) from which transmission of said portion (S11) shall be requested,

to determine, depending on the estimated transmission speeds, how large said portion (S11) shall be, and

to request transmission of said portion (S11).

8. Procedure, as claimed in any of the previous patent claims, including the steps

to estimate the transmission speeds from respective transmitting unit (30-33), and

to request transmission of segments (S5-S8) of different sizes, at which the size of respective segment is determined on basis of the estimated transmission speeds.

9. Procedure, as claimed in any of the previous patent claims, including the step

to estimate the transmission speeds from respective transmitting unit, and

to select transmitting units (30-33) for the transmission with regard to the estimated transmission speed from respective transmitting unit.

5 10. Device for control of data file transmission between transmitting (30-33) and receiving units (20), at which examples of the data file (F) that shall be transferred is stored at a plurality of transmitting units (30-33), including

10 device to request transmission of segments (S1-S4) of the data file (F) from a plurality of transmitting units (30-33), and

device to receive said segments (S1-S4) from a plurality of transmitting units (30-33).

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11. Device, as claimed in patent claim 10, at which each separate segment (S1-S4) is transmitted from only one transmitting unit.

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12. Device, as claimed in patent claim 10 or 11, at which each separate transmitting unit transmits only one segment (S1-S4) of the file.

25 13. Device, as claimed in patent claim 10, including device to, when the transmission of a segments (S1-S4) from a transmitting unit is completed, request transmission of one more segment (S1) of the data file (F) from said transmitting unit, at which the transmission of this one more segment (S1) from another transmitting unit has
30 started.

14. Device, as claimed in patent claim 13, at which the device to request transmission of one more segment (S1-S4) includes

device to determine for which segment (S1-S4) that largest portion of the segment (S1-S4) remains to be transmitted, and

device to request transmission of this segment (S1).

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15. Device, as claimed in patent claim 13 or 14, at which the device to request transmission of one more segment (S1) includes

device to request transmission of only a portion (S11) of said segment (S1), at which this portion (S11) is included in that portion of the segment (S1) that has not yet been transferred.

16. Device, as claimed in patent claim 15, at which the device to request transmission of a portion (S11) of said segment (S1), includes

device to determine how large portion of the segment (S1) that remains to be transferred,

device to estimate the transmission speed for the transmitting unit (30) which is busy transmitting said segment (S1) and for the transmitting unit (31) from which transmission of said portion (S11) shall be requested,

device to determine, depending on the estimated transmission speeds, the size of said portion (S11), and device to request transmission of said portion (S11).

17. Device, as claimed in any of the previous patent claims, including

device to estimate the transmission speeds from respective transmitting unit (30-33), and

device to request transmission of segments (S5-S8) of different sizes, at which said device is arranged to determine the size of respective segment (S5-S8) on basis of the estimated transmission speeds.

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18. Device, as claimed in any of the previous patent claims, including

device to estimate the transmission speeds from respective transmitting unit, and

s device to select transmitting units (30-33) for the transmission with regard to the estimated transmission speed from respective transmitting unit.

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AMENDED CLAIMS

[received by the International Bureau on 12 September 2000 (12.09.00);
original claims 1-18 replaced by amended claims 1-14 (3 pages)]

1. Procedure, for control of data file transmission between transmitting (30-33) and receiving units (20), at which examples of the data file (F) that shall be transmitted/transferred are stored at a plurality of transmitting units (30-33), including the steps

to request transmission of segments (S1-S4) of the data file (F) from a plurality of transmitting units (30-33), and

to receive said segments (S1-S4) from a plurality of transmitting units (30-33), when the transmission of a segment (S1-S4) from a transmitting unit is completed, request transmission of one more segment (S1) of the data file (F) from said transmitting unit, at which the transmission of this one more segment (S1) from another transmitting unit has started, at which the step to request transmission of one more segment (S1) includes the step

to request transmission of only a portion (S11) of said more segment (S1), at which this portion (S11) is included in the portion of the segment (S1) that has not yet been transferred.

2. Procedure, as claimed in patent claim 1, at which each separate segment (S1-S4) is transmitted from only one transmitting unit.

3. Procedure, as claimed in patent claim 1 or 2, at which each separate transmitting unit transmits only one segment (S1-S4) of the file.

4. Procedure, as claimed in patent claim 1, at which the step to request transmission of one more segment (S1-S4) includes the steps

to determine for which segment (S1-S4) that largest portion of the segment (S1-S4) remains to be transmitted, and
to request transmission of this segment (S1).

5. Procedure, as claimed in patent claim 1, at which the step to request transmission of a portion (S11) of said segment (S1) includes the step

to determine how large portion of the segment (S1) that remains to be transferred,

to estimate the transmission speed for the transmitting unit (30) that is busy transmitting said segment (S1) and for the transmitting unit (31) from which transmission of said portion (S11) shall be requested,

to determine, depending on the estimated transmission speeds, how large said portion (S11) shall be, and
to request transmission of said portion (S11).

6. Procedure, as claimed in any of the previous patent claims, including the steps

to estimate the transmission speeds from respective transmitting unit (30-33), and

to request transmission of segments (S5-S8) of different sizes, at which the size of respective segment is determined on basis of the estimated transmission speeds.

7. Procedure, as claimed in any of the previous patent claims, including the step

to estimate the transmission speeds from respective transmitting unit, and

to select transmitting units (30-33) for the transmission with regard to the estimated transmission speed from respective transmitting unit.

8. Device for control of data file transmission between transmitting (30-33) and receiving units (20), at which examples of the data file (F) that shall be transferred is stored at a plurality of transmitting units (30-33), including

device to request transmission of segments (S1-S4) of the data file (F) from a plurality of transmitting units (30-33), and

device to receive said segments (S1-S4) from a plurality of transmitting units (30-33), when the transmission of a segments (S1-S4) from a transmitting unit is completed, request transmission of one more segment (S1) of the data file (F) from said transmitting unit, at which the transmission of this one more segment (S1) from another transmitting unit has started, at which the device to request transmission of one more segment (S1) includes

device to request transmission of only a portion (S11) of said segment (S1), at which this portion (S11) is included in that portion of the segment (S1) that has not yet been transferred.

9. Device, as claimed in patent claim 8, at which each separate segment (S1-S4) is transmitted from only one transmitting unit.

10. Device, as claimed in patent claim 8 or 9, at which each separate transmitting unit transmits only one segment (S1-S4) of the file.

11. Device, as claimed in patent claim 10, at which the device to request transmission of one more segment (S1-S4) includes

device to determine for which segment (S1-S4) that largest portion of the segment (S1-S4) remains to be transmitted, and
device to request transmission of this segment (S1).

112. Device, as claimed in patent claim 11, at which the device to request transmission of a portion (S11) of said segment (S1), includes

device to determine how large portion of the segment (S1) that remains to be transferred,

device to estimate the transmission speed for the transmitting unit (30) which is busy transmitting said segment (S1) and for the transmitting unit (31) from which transmission of said portion (S11) shall be requested,

device to determine, depending on the estimated transmission speeds, the size of said portion (S11), and
device to request transmission of said portion (S11).

13. Device, as claimed in any of the previous patent claims, including

device to estimate the transmission speeds from respective transmitting unit (30-33), and

device to request transmission of segments (S5-S8) of different sizes, at which said device is arranged to determine the size of respective segment (S5-S8) on basis of the estimated transmission speeds.

14. Device, as claimed in any of the previous patent claims, including

device to estimate the transmission speeds from respective transmitting unit, and

device to select transmitting units (30-33) for the transmission with regard to the estimated transmission speed from respective transmitting unit.